
$^{13}\text{C}({}^9\text{Be},\alpha n),({}^9\text{Be},{}^5\text{He}) \quad 1984\text{Da17,1986Cu02}$

1984Da17: $^{13}\text{C}({}^9\text{Be},\alpha n),({}^9\text{Be},{}^5\text{He})^{17}\text{O}$, E=1.2-5.2 MeV; measured $\sigma(E)$, γ yields; deduced no evidence for the $^{13}\text{C}({}^9\text{Be},{}^5\text{He})^{17}\text{O}$ transfer process in the ${}^{17}\text{O}+\alpha$ channels.

1986Cu02: $^{13}\text{C}({}^9\text{Be},\alpha n){}^{17}\text{O}$, E(cm)≈2-5 MeV; measured E_γ , I_γ , γ , residual production $\sigma(E)$. ${}^{17}\text{O}$ deduced transitions. Statistical model, α -transfer, DWBA analyses. Enriched targets, Ge detectors.

See also (2019Xu05: theory).

${}^{17}\text{O}$ Levels

$E(\text{level})^\dagger$	J^π	l_a^\ddagger				Comments
0	$5/2^+$					Q=3.89 MeV (1984Da17,1986Cu02).
870	$1/2^+$	1				Q=3.02 MeV (1984Da17).
3060	$1/2^-$	0				Q=0.83 MeV (1984Da17).
3840	$5/2^-$	2				Q=0.05 MeV (1984Da17).

† From (1984Da17,1986Cu02).

‡ The angular momentum of the transferred α -particle (1986Cu02).

$\gamma({}^{17}\text{O})$

E_γ	I_γ	$E_i(\text{level})$	J_i^π	E_f	J_f^π
870	100	870	$1/2^+$	0	$5/2^+$
2190	100	3060	$1/2^-$	870	$1/2^+$
3840	100	3840	$5/2^-$	0	$5/2^+$

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